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ANALYSIS OF INDIA'S INTRA-LNDUSTRY TRADE WITH ASEAN: AN OVERVIEW

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Introduction

Over the past decade, trade and investment relations between India and ASEAN have continued to improve. Total bilateral trade increased more than threefold from US\$ 21 billion in 2005-06 to US\$ billion in 2015-16. With ASEAN India Free Trade Agreement (AIFA) in place and elimination of tariffs on vast number of product lines in coming will provide a big boost to our bilateral trade.

There is no denying that the ASEAN India Free Trade Agreement brings strategic gains to India; however, economic gains canbe substantial only if supply chains are developed, with 4 focuses. Towards intra-industry trade. The AIFTA agreement provides increased scope for integration of supply chains in the machinery, electrical and electronics sectors and transport, .which could be further supplemented by services trade and investment. However, full trade potential and product integration to be realized, facilitation of business to business connections,

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information flow, harmonization and mutual recognition of standards as well as removal of other such non-tariffbarriers are crucial.

Indian businesses must recognize the opportunities presented by the ASEAN's growth and economic integration. It will be important for Indian businesses to understand their strength in the ASEAN market and to formulate their strategies accordingly. We need to think of ASEAN as a whole with distinctive regions to get a clear sense of perspective.

The importance of India's current relationship with ASEAN and its future potential for mutually beneficial growth will require greater political, economic, and diplomatic engagement with ASEAN. ASEAN's geostrategic importance stems from many factors, including the strategic location of member countries, the large shares of global trade that pass through regional waters.

ASEAN is a fast expanding trade bloc in Asia with a growing economic clout. With a combined population of more than 620 million, ASEAN's aggregate economic size surpasses US\$2.5 trillion (Table: 1.1). ASEAN economies have generally remained buoyant thanks in part to the bloc's expanding intra-Asia trade. Investment has played a key role in spurring GDP growth in many ASEAN economies. In the past decade alone, intra-Asia trade has tripled by value, rising more rapidly than either extra-Asia trade or global trade, which has just doubled in value.

"Intra-Industry trade refers to the exchange of similar products belonging to the same industry. The term is usually applied to international trade, where the same types of goods-or services are both imported and exported. "

Intra Industry Trade shows trade in close substitute goods that are demanded by consumers from different countries with different preferences. Many studies suggest that the more developed countries, the more specialized trade structure and thus the higher IIT would be. Thus the industrialized countries like OCED members expected to have very adopting suitable trade policies. In addition, by considering intra industry trade in different significant advantages for specialization in them. This is helpful in trade decision making and to some extent determine how will one can complete in new trade environment and what adjustments are required. The increasing extent of Intra Industry trade in the world trading system has some important implications for adjustment of economies to increase trade by increasing trade: the size of economic sectors may change.

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Since its emergence in the late of 1960's, the concept of Intra Industry Trade (IIT) has made an enormous impact on the empirical and theoretical analysis of International trade and on ensuring policy recommendations. Balassa (1966) was first in asserting that the observed increase in IIT might imply that "the difficulties of adjustment to free trade have been generally over estimated." It has been commonly perceived ever since that the observed rise in IIT across the industrialized world greatly facilitated trade liberalization by reducing pressure of each country to concentrate production on a narrow range of industries according to its comparative advantage. Economic interactions among the high income developed countries are characterized by high degrees of both Intra Industry trade and Intra Industry affiliate production and sales.

Traditional trade theory implies one of the major benefits associated With the movement of goods between the regions is due to greater specialization in accordance with principle of comparative advantage. Intra Industry trade is explained in terms of increasing returns to scale, and one of the main benefits of Intra Industry is greater product variety enjoyed by customers.

The work of Grubel and Lloyd (1975), which shows the importance of IIT, Brander (1981) and brander and Krugman (1985) analyze IIT trade in oligopolistic markets while Krugman (1979, 1980, 1981), Lancaster and Helpman (1981) show how Intra Industry trade may exist in the presence of monopolistic competition.

Review of Literature

Thakkaran (1983) summarized the studies on Intra Industry trade and observed the following on the basis of the survey and the study conducted by J. Koi and L. B. M. Mennas (1983) and D. Green way (1983) they have analysed and concluded that the possibilities for Intra Industry trade will increase as the partner countries share a larger similarities with respect to income per capita, Intra industry trade will comprise a larger part of total trade. The scope for Intra Industry trade will be more in large countries than in small countries, the average level of Intra Industry Trade will be more in developed countries than in less developed countries and Intra Industry Trade will be less for primary products and new materials than for manufactured products. Flavey & Kierzkowski (1987) explained they produced a model that tried to get rid of the idea that all the products are produced under identical technical conditions. Their model showed that on the demand side goods are distinguished by the perceived quality of that good high quality goods are produced under conditions of high capital intensity. However, this

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explanation has also been dismissed. The benefits of intra-industry trade have been explained by various business researchers, and all of these benefits can be summarized into three points that which is illustrated by Johnson and Taylor (2009) in the following way:

Firstly, intra-industry trade increases the variety of products of the same industry, which is beneficial to both, business, as well as consumers. This benefit of intra-industry trade is possible because today product range from the same industry can be highly differentiated, and intra-industry trade will provide the opportunity of having a vast range of differentiated products within the markets of trading partners. Secondly, intra-industry trade gives opportunity for businesses to benefit from the economies of scale, as well as use their comparative advantages. In other words countries will get more economic benefits if they concentrate on producing specific types of products within specific range, according to their comparative advantages rather than producing all ranges of specific products. Thirdly, intra-industry trade stimulates innovation in industry, and can assist the economy in cases of short-term economic fluctuations.

Objective:

- To analyze the pattern of trade between India and the ASEAN.
- To find out whether the pattern of trade is Intra Industry Trade or Inter Industry Trade.
- To analyze the intensity of IIT between India and ASEAN from 2005-06 to 2015-16.
- Hypothesis:
- Ho- There is no possibility of IIT' between India and ASEAN.
- Ho- The intensity of IIT between India and ASEAN is not significant in the study period.

Methodology

Measurement issues are at the heart of the literature on IIT and adjustment. Different types of trade: horizontal trade in similar products with differentiated products distinguished by quality and price and vertical specialization of production that the results in trade in similar goods at different stages of production (Clegg, Jeremy 1990). Horizontal Intra Industry trades enable countries with similar factor endowments to benefit from economies of scale by specializing in niche products. Trade in vertical differentiated products may be driven by comparative advantages, for example to use cheap unskilled labour for assembly purpose or specialized personnel for research and development.

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Where, AGR is annual Growth rate.

 $CAGR = (End value/Beginning Value)^{A}(l/n)-l(2)$

Where, CAGR = Compound Annual Growth Rate; n = the given time period.

Grubel and Lloyd (1975) have developed the index of measuring the level of Intra Industry trade which is used more extensively have been used for Intra-industry trade pattern analysis.

(1)

Theoretical Frame work of Intra Industry Trade

Intra Industry trade in the products has been identified as the two way exchange of goods within standard industrials classifications. The extent of Intra industry trade is commonly measured by Grubel-Lloyd index based on commodity group transactions. Thus for any particular product, an Index of the extent of intra industry trade in the product has been identified as above given equations. A large theoretical literature has emerged directed at explaining the presence of Intra Industry Trade (IIT). One of the distinctions which come out of these models is that between horizontal IIT (where goods are differentiated by attributes) and vertical IIT (where goods are differentiated by quality). Intra-industry trade based upon the similarity of nations may lead to more costly adjustments, as trade and specialization move factors from contested export-oriented industries. To make our result with simplification the products have been classified by four categories.

• If indices value between 0.00 to 0.25, - there may be strong inter-industry trade tendencies.

• If indices value between 0.25 to 0.50 - there may be weak inter-industry trade tendencies.

• If indices value between 0.50 to 0.75 - there may be weak intra-industry trade, tendencies.

• If indices value between 0.75 to 1.00 - there may be strong be strong intra-industry trade tendencies.

The level of aggregation of 1 can be at different levels of HS classifications. The index lies between 0 and 1 with the former representing complete intra industry trade.

The study attempts to construct the index of intra industry trade between India and ASEAN nations at 4-digital level of HS Code for 2005 to 2015 using the method of verdoom (1960). Vr = XiHB = exports of ith item to H country to country B XiBH = imports of ith item from B country to country H and using the method of Grubel and Lioyd (1975) GL = 1-(Exi-

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Imi)/(Exi + Imi) where, Exi = Exports of jth item from country A to country B, Imi = import of jth item from country B to country A. The whole HS code has been analysed and the following items have an appropriate Intra industry trade between India and ASEAN.

Data Sources

The foreign trade statistics have been collected from the Directorate General of Commercial Intelligence and Statistics (DGCI &S), Supplied in electronic form (namely, India Trades)by the Centre for Monitoring Indian Economy (CMIE). The data covers India's export and imports of manufactures with ASEAN between the years 2005-06 to 2015-16. The measured values of the export and import are in Billion US dollars. Annual data is used because the trade pattern can vary year from year and only analyzing some years could lead to misleading results. By using annual data, one gets clear and trustworthy results and it is easy to changes in the pattern of trade.

Table 1

Country	Population	Area	Cross National Per capita				
	2014		Income \$ Billions (2014) Income			(2014)	
	Million	Sq km Th	CER	PPP	CER	PPP	
Brunei	0.4	5.8	15.1	29.3	37320	72190	
Cambodia	15.3	181.0	15.6	47.2	1020	3080	
Indonesia	254.5	1910.9	923.7	2592.3	3630	10190	
Laos	6.7	236.8	11.1	33.8	1660	5060	
Malaysia	29.9	330.8	332.5	740.8	11120	24770	
Myanmar	53.4	676.6	68.1	204.3e	1270		
Philippines	99.1	300.0	347.5	837.6	3500	8450	
Singapore	5.5	0.7	301.6	439.0	55150	80270	
Thailand	67.7	513.1	391.7	1006.9	5780	14870	
Vietnam	90.7 •	331.0	171.9	485.2	1890	5350	
India	1295.3	3287.3	2028	7292.8	1570	5630	
Total ASEAN	623.2	4486.7	2578.8	6416.4			
	(8.6%)	(3.3%)	(3.3)	(5.9%)			

Size of the ASEAN Economies

Source: Table 1.1 Size of the Economy, World Development Indicators 2016; GNI-gross national income; CER-current exchange rate; PPP-purchasing power parity's-estimate; Th.-thousand Figures within parenthesis indicate share of ASEAN in relevant global totals.

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ASEAN is a fast growing trade bloc in Asia with a growing economic influence. With a combined population of more than 620 million, ASEAN's aggregate economic size surpasses US\$ 2-5 trillion. ASEAN economies have generally remained buoyant thanks in part the bloc's expanding intra-Asia trade. Investment has played a central role in spurring GDP growth in many ASEAN economies. In the past decade alone, intra-Asia trade has tripled by value, rising more rapidly than either extra-Asia trade or global trade, which has just doubled in value.

Unlike the BRICs, whose fortunes were based largely on individual economic competitiveness, ASEAN's strength is buttressed on its "competitive interconnectedness". ASEAN lies at the heart of many important global industrial production chains in manufacturing and services trade. These allow countries to specialize in different parts of the production process, tapping the competitive advantages of each location. The bulk of intra-Asia trade comprises parts, components, raw materials and machinery needed in export-oriented production; consumer goods are increasingly traded within Asia. Trade in intermediate goods in Asia trumps all other regions in the world - a sign of how vibrant these production networks have become. Some of the notable aspects of ASEAN's economic development during the course of its evolution are recapitulated below.'

1. ASEAN is not a monolithic market: If treated as a single entity, the ASEAN with a combined GDP of more than \$2.5 trillion would rank as the third largest economy in Asia and seventh largest in the world (after the US, China, Japan, Germany, the UK and France) based on 2014 figures in current Dollar terms. Yet, the ASEAN has great economic and income diversity among its members, ranging from a low per capita income of around US\$1020 in Cambodia to more than US\$55,000 in Singapore (Table: 1.1). (Vinayak HV etal). ASEAN's 10 member states are diverse in terms of race, religion, culture, economic development and political systems. ASEAN is a diverse group.

2. ASEAN is a growing hub of consumer demand: ASEAN has dramatically outpaced the rest of the world on growth in GDP per capita since the late 1970s. Income growth has remained strong since 2000, with average annual real gains of more than 5 percent. Some member nations have grown at a torrid pace: Vietnam, for example, took just 11 years (from 1995 to 2006) to double its per capita GDP from \$1,300 to \$2,600. Besides, an expanding middle class in ASEAN, estimated to be around 150 million or one-quarter of the ASEAN population, has been fuelling consumer spending and retail sales in the organised channels.

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3. ASEAN is well positioned in global trade flows: ASEAN is the fourth-largest exporting region in the world, trailing only the European Union, North America, and China/Hong Kong. ASEAN export to the world in 2014 stood at US\$ 1.3 trillion, with intra-ASEAN exports making up 26 per cent of those exports. Indian exports to ASEAN grew from U.S. \$ 10.4 billion in 2005-06 to U.S. \$ 25.2 billion in2015-16 and have grown by compound annual growth of 9.2 % in the past decade, even taking into account the brief dip due to the global financial crisis. With the anticipated growth of the ASEAN economy, India can expect to expand its exports in both goods and services to the region. ASEAN accounts for 7 percent of global exports with exports diversified export basket. Vietnam specializes in textiles and apparel, while Singapore and Malaysia are leading exporters of electronics. Thailand has joined the ranks of leading vehicle and automotive-parts exporters. Other ASEAN members have built export industries around natural resources. Indonesia is the world's largest producer and exporter of palm oil, the largest exporter of coal, and the second-largest producer of cocoa and tin. While Myanmar is just beginning to open its economy, it has large reserves of oil, gas, and precious minerals. Philippines have established a thriving business-process-outsourcing industry. Export-processing zones, once dominated by China, have been established across ASEAN. The Batam Free Trade Zone (Singapore-Indonesia), the Southern Regional Industrial Estate (Thailand), the TanjungEmas Export Processing Zone (Indonesia), the Port Klang Free Zone (Malaysia), the Thilawa Special Economic Zone (Myanmar), and the Tan Thuan Export Processing Zone (Vietnam) are all expected to propel export growth. The region sits at the crossroads of many global flows.

4. Launch of ASEAN Economic Community (AEC): AEC was officially launchedon 31st December 2015 to create a single market to enable an easier movement of goods, services, investment, capital and people across the region. This will result in a common market of more than 600 million people, dwarfing the EU's 500 million and NAFTA's over 400 million. 5. Intraregional trade within ASEAN likely to surge with implementation of the AEC: Some 25 percent of the region's exports of goods go to other ASEAN partners, a share that has remained roughly constant since 2003. While this is less than half the shareofintraregional trade seen in the NorthAmerican Free Trade Agreement countries of Canada, Mexico, and the United States and in the European Union, the total value is increasing rapidly as the region develops stronger cross-border supply chains. Intraregional trade in goods—along with other types of

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cross-border flows—is likely to increase with implementation of the ASEAN Economic Community integration plan, which aims to allow the free movement of goods, services, skilled labor, and capital. Progress has been Uneven, however. While tariffs on goods are now close to zero in many sectors among the original six member states (Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand), progress on liberalization of services and investment has been slower, and nontariff barriers remain a stumbling block to freer trade. While deeper integrationamongits member states remains a work in progress, ASEAN has forged free-trade agreements elsewhere with partners that include Australia, China, India, Japan, New Zealand, and South Korea

Table 2

India ASEAN Merchandise Trade (Exports aImport) to ASEAN

<u>Part - A</u>

Year	India's Export		India's Import				
	Absolute value	AGR = (End Value)	CAGR	Absolute value	AGR = (End	CAGR	
	(U.S. \$ Billions)	Initial Value)/ Initial		(U.S. \$ Billions)	Value Initial		
		Value			Value)/ Initial		
2005-06	10.41	-		10.88	value		
		0.011.1			0.667		
2006-07	12.61	0.211 *		18.11	0.665		
2007-08	16.41	0.301		22.67	0.252		
2008-09	19.14	0.166		26.2	0.156		
2009-10	18.11	-0.054		25.8	-0.015		
2010-11	25.63	0.415	0.092	30.61	0.186	0.139	
2011-12	36.74	0.433		42.16	0.377		
2012-13	33	-0.102		42.87	0.017		
2013-14	33.13	0.004		41.28	-0.037		
2014-15	31.81	-0.040		• 44.71	0.083		
2015-16	25.2	-0.208		39.84	-0.109		
Growth Ra	te Prediction V(tn) =	V(to)*(1 + CAGR) [^] n	V(tn)	= V(to)*(1 + CAG	R) [^] n		
Year							
2016-17	27.41		45.53				
2017-18	29.93		51.86				
2018-19	32.68		59.07				
2019-20	35.69		67.29				
2020-21	38.98		76.64				
2021-22	42.56		87.29				
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Source: Authors' calculation on the basis of Import Export Data Bank, Government of India, Department of Commerce http://www.commerce, nic.in/eidb/default, asp

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The table 1.2 shows the India's absolute Export and Import values from 2005-06 to 2015-16, which reflects that the annual growth rate of Exports to ASEAN have been positive except in the year 2009-10 (Year of Economic slowdown), 2012-13 to 2013-14 and in 2014-15 again the export growth is negative due to due to more reliance of India's Exports on global commodity prices in recent years. The compound annual growth rate (CAGR) of export is 0.092 during the period 2005-06 to 2015-16. On the basis of CAGR the Exports of India to ASEAN may reach to 42.56 US\$ Billion.

When we look at eh import of India from ASEAN it's growth rate have been also positive measured, in terms of Annual Growth Rate (Annual Growth Rate) except in the year 2009-10, 2013-14 and 2015-16 may be due to after effect of global economic slowdown and appreciation in Indian currency during this period.

The compound annual growth rate (CAGR) of imports is 0.139 during the period 2005-06 to 2015-16. On the basis of CAGR the imports of India to ASEAN reach up to 87.29 US\$ Billion

In table 1.3, comparisons have been made in India's merchandise trade with ASEAN member countries. India's trade deficit with Indonesia, Myanmar, and Thailand is high in 2005-06, which increases in 2015-16 with more imports from Brunei, Indonesia, Lao, Malaysia and Thailand. The CAGR between times periods 2005-06 to 2015-16 shows that growth rate in import from ASEAN to India is more than that of growth rate in exports. Hence, trade deficit is a matter of concern for India, for which volume and value of exportable to the ASEAN member countries need to be increased.

The table 1.4 reveals the major commodity in which India trade with ASEAN. We have tried to find out the commodities in which two way trade (Intra-industry Trade) is going on and the potential commodities in which two way trades is possible. In case of commodity (item No. 1 to 7) in the above table 1.4 are the commodities in which there is one way trade (i.e. value of GL Index is Zero). These are the products is being exported in 2015-16 also. But, there are products like plastic and raw materials (HS Code 3926), Rubber products (HS Code 4002), MM Filaments/Fiber (HS Code 7019), Iron and steel and Articles (HS Code 7326), Non-Ferrous metals (HS code 7204), Transport equipment (HS Code 8708), Rail equipment (HS Code 8608), Ships (HS Code 8901) shows a significant level of Intra-

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Table-3

Country	2005-06				2015-16			CAGR		
	Exports Million	\$ Imports Million	\$ TD Million	\$ Exports Million	S Imports Million	\$ TD Million	\$ 2015-16/2005-06 Exports Imports			
Brunei	43	1	42	28	554	-526	-4.0	90.5		
Cambodia	24	1	23	143	54	89	19.4	52.9		
Indonesia	1380	3008	-1628	2841	13068	-10227	7.5	15.8		
Lao	5	0	5	38	180	-142	21.4	111.6		
Malaysia	1162	2416	-1254	3707	9084	-5377	12.3	14.2		
Myanmar	111	526	-415	1068	984	84	25.4	6.5		
Philippines	495	235	259	1369	542	826	10.7	8.7		
Singapore	5425	3354	2072	Till	7306	416	3.6	8.1		
Thailand	1075	1212	-136	3009	5510	-2501	10.8	16.4		
Vietnam	691	131	559	5270	2560	2710	22.5	34.6		
Total ASEAN	10411	10884	-472	25195	39843	-14648	9.2	13.9		
Total Global	103091	149166	-46075	262031	380665	-118634	9.8	9.8		

India's Merchandise Trade with ASEAN countries

Source: Department of Commerce, Government of India; http://commerce.nic.in/MOC/index.asp

Table 4

Intra Industry Trade between India and ASEAN

	2005-06 US \$ Million			2015-16 US \$ Million			
Name of items or commodity	XI	MI	GL	XI	MI	GL	
	Index				Index		
2	3	4	5	6	7	8	
Fresh Vegetables a fruits	76	0	0	216	0	0	
2. Meat products	193	0	0	2649	0	0	
Fish products.	97	0	0	1089	0	0	
Spices	46	0	0	499	0	0	
Sugar	22	0	0	488	0	0	
Oil cakes 6t fodder	527	0	0	225	0	0	
Petroleum products	2463	0	0	3766	2806	0.853	
Chemicals	1071	9.8	0.018	1698	3053	0.714	
Inorganic	84	0.8	0.018	130	329	0.566	
Organic	834	7.4	0.017	1234	2075	0.745	
Special chemicals	153	1.6	0.020	334	649	0.679	
	2Fresh Vegetables a fruits2. Meat productsFish products.SpicesSugarOil cakes 6t fodderPetroleum productsChemicalsInorganicOrganicSpecial chemicals	2005-06US \$ MillionName of items or commodityXI23Fresh Vegetables a fruits762. Meat products193Fish products.97Spices46Sugar22Oil cakes 6t fodder527Petroleum products2463Chemicals1071Inorganic84Organic834Special chemicals153	2005-06US \$ MillionName of items or commodityXIMI234Fresh Vegetables a fruits7602. Meat products1930Fish products.970Spices460Sugar220Oil cakes 6t fodder5270Petroleum products24630Chemicals10719.8Inorganic840.8Organic8347.4Special chemicals1531.6	2005-06US \$ MillionName of items or commodityXIMIGL2345Fresh Vegetables a fruits76002. Meat products19300Fish products.9700Spices4600Sugar2200Oil cakes 6t fodder52700Petroleum products246300Chemicals10719.80.018Inorganic840.80.017Special chemicals1531.60.020	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	

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3006	Pharmaceuticals	163	0	0	717	136	0.318
3926	Plastic 6t raw materials	148	369	0.572	348	1759	0.330
4002	Rubber 8t products	88	123	0.834	226	995	0.370
7113	Precious stones & Jewelry	1590	69	0.083	1106	817	0.849
4810	Paper & pulp	25	163	0.265	131	358	0.535
5208	Cotton	165	0	0	602	0	0
7019	MM filaments/fiber	108	137	0.88	273	321	0.919
7326	Iron & steel 6 articles	675	353	0.68	723	1272	0.724
7204	Non ferrous metals	469	202	0.60	1322	1602	0.904
8542	Mechanical appliances	348	1989	0.297	1617	3741	0.603
8708	Electrical Stelectronics	280	1298	0.354	798	4142	0.323
8608	Transport equipment	698	502	0.836	2150	1908	0.940
8608	Rail equipment	2	0.3	0.260	7	1	0.25
	Autos & component	240	70	0.451	1051	598	0.725
8714	Aircraft & parts	3	139	0.042	115	209	0.709
8901	Ships	453	293	0.785	977	1100	0.940
9018	Optical/photo instrument	78	200	0.561	356	617	0.731

Note: *share of exports to ASEAN in total exports; CAGR-compound annual growth rate

Source: Author's calculation on the basis of Import Export Data Bank, Government of India, Department of Commerce, httpil I www. Commerce, nic.inleidbl default, asp

Industry trade between India and ASEAN in 2005-06.

In 2015-16 some more commodities reflects the two ways trades between India-ASEAN, which includes petroleum products (HS Code 2710), Chemical (HS Code 3823), Inorganic (HS Code 2811), Organic (HS Code 3204), Special chemicals (HS Code 3208), Precious stones and Jewelry (HS Code 7113), Mechanical Appliances (HS Code 8536), Air Craft and Parts (HS Code 8714), Optical/Photo instrument (HS Code 9018), which reflects that India's trade with ASEAN is moving towards similar Production (two way trade). Hence, if we want to reduce our trade deficit in the coming years, then we should focus more on the production and export of these commodities, which will enhance the volume, value an intensity of intra-industry trade with India and ASEAN.

Conclusions

In recent years, trade and investment relations between India and ASEAN have continued to improve. Total bilateral trade increased more than threefold from US\$21 billion in 2005-06 to US\$65 billion in 2015-16. The compound annual growth rate (CAGR) of exports over the period

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stood at 9 %, while that of imports stood close to 14%. Together, this led to a trade deficit of US\$14.6 billion for India with ASEAN in 2015-16, an increase from US\$ 0.5 billion in 2005-06.

Under ASEAN India Free Trade Agreement (AIFTA) entered into force on January 1, 2010, tariffs on over 4,000 product lines will be eliminated by 2016 and sensitive products have been given a longer timeframe for tariff liberalization. Both sides are now consolidating the trade in services and investment provisions. The tariff liberalization schedule for AIFTA has five components - (i) Normal Track; (ii) Sensitive Track; (iii) Special Products; (iv) Highly Sensitive List; and (v) Exclusion List. The tariff liberalization schedule began in January 2010 and is to be fully implemented by 2013 and 2016 in respect of the items on the two 'normal tracks'. The trade in goods agreement contains phased elimination/reduction of castor duties on imports from signatory countries. The objective of the agreement is to reach a zero customs duty regime for 'substantially all trade' between India and ASEAN countries. The time frame for phasing out of tariffs varies by country and product grouping. Once the agreement comes into full implementation, tariffs will be eliminated on 80 percent of traded goods between India and ASEAN countries that is about 75 percent of the total trade.

Exports from India experience a sharp fall compare to any other ASEAN Economies in recent years, perhaps reflect the inherent structural weaknesses that now required to be addressed if export performance to improve.

Slower global demand growth combined with a loss of global competitiveness due to higher wage growth, a stronger Rupee and infrastructure deficit have an adverse impact on Indian Export since 2012, which can be seen in the table 1.2.

India needs to identify the sectors where it has a natural competitive advantage and focus on providing necessary infrastructure and skills for these sectors. These sectors can be Identified from table 1.4, which reveals the rising Intra Industry Trade in petroleum products (HS Code 2710), Chemical (HS Code 3823), Inorganic (HS Code 2811), Organic (HS Code 3204), Special chemicals (HS Code 3208), Precious stones and Jewelry (HS Code 7113), Mechanical Appliances (HS Code 8536), Air Craft and Parts (HS Code 8714) and Optical/Photo instrument (HS Code 9018).

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References

- Grubel, H. G. and P.J. Lloyd, 1975, Intra-industry Trade; The Theory and Measurement of International Trade in differentiated products (Wiley, New York).
- Tharakan, P.K. M., 1989, ed., Intra-industry Trade: Theory, Evidence and Extensions (Macmillan, London).
- Brander, James A. and Paul R. K. (1981), "A Reciprocal Dumping Model of International Trade", *Journal ofInternational Economics*, Vol. 11, pp 30-38.
- Helpman (1990), "International Trade in the presence of product differentiation, Economics of scale and monopolistic competition", *Journal of International Economics*, Vol. 12, pp 125-138.
- Clegg, Jereny (1990), "Intra industry foreign direct investment: A study of recent evidence", in Allan Websterand John J. Dunning 9EDS), *Structural Change in the World Economy*, Londan: Routledge.
- Falvey, R. E. and H. Kierzkowskf, 1987, product quality, intra-industry trade and imperfect competition, in: H.Kierzkoski, ed., Protection and competition in international trade (Basil Blackwell, New York) 143-161.
- Greenaway, D. and C. Milner, 1986, The economics of Intra Industry Trade (Basil Blackwell, New York).
- Greenaway. D. and C. Milner, 1987, Intra Industry trade: Current perspectives and unresolved issues, WeltwirtschaftlichesArchiv 123:1, 39-57.
- Verdoorn, Petrus Johannes, "The Intra-Block Trade of Benelux". In: E. A.G. Robinson (Ed.), *EconomicConsequences of the Size of Nations*. London 1960, pp. 291-329.
- ASEAN Statistical year book 2014, 2015, 2016.
- ASEAN investment into India
- <u>http://dipp.nic.in/English/Publications/SIA_NewsLetter/AnnualReport2012/Chapter6.1.C</u>
 <u>.pdf.</u>
- ASEAN Economic Community (AEC) A potential game changer for ASEAN countries, June, 2013, Deutsche Bank.
- Auquier, A. A. (1980) 'Sizes of Firms, Exporting Behaviour, and the Structure of French Industry', *Journal of Industrial Economics*, 29, 203-18.

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- Balassa, B. (1986) 'The Determinants of Intra-industry Specialisation in United States Trade', Oxford Economic Papers, 38, 220-33.
- Bernhofen, D. M. (1999) 'Intra-industry Trade and Strategic Interaction: Theory and Evidence' *Journal ofInternational Economics*, 47, 225-44.
- Brander, J. A. (1981) 'Intra-industry Trade in Identical Commodities', *Journal of International Economics*, 13, 313-21.
- Brulhart, M. (1994) 'Marginal Intra-industry Trade: Measurement and the Relevance for the Pattern of IndustrialAdjustment', *WeltwirtschaftlichesArchiv*, 130, 600-13.

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